

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: M. Hayama et al. : Art Unit:
 Serial No.: To Be Assigned : Examiner:
 Filed: Herewith :
 For: METHOD FOR FABRICATING A :
 MULTILAYER CERAMIC
 SUBSTRATE (AS AMENDED)

DIVISIONAL OF:

Applicant: M. Hayama et al. : Art Unit: 2814
 Serial No.: 09/173,288 : Examiner: A. Chambliss
 Filed: October 14, 1998 : Attn: Issue Branch
 For: METHOD FOR FABRICATING A : Confirmation No.: 1587
 MULTILAYER CERAMIC :
 SUBSTRATE (AS AMENDED) :

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
 Washington, DC 20231

S I R :

Prior to examination, please amend the above-identified application as follows:

IN THE TITLE:

Please replace the Title beginning at page 1, line 1 of the Specification:

METHOD FOR FABRICATING A MULTILAYER CERAMIC SUBSTRATE

200220" 846T800T
 10081948 022002

IN THE SPECIFICATION:

Please insert the following section at page 1, line 5 of the Specification:

CROSS-RELATED APPLICATIONS

A¹ This application is a Divisional application of U.S. Patent Application
Serial No. 09/173,288, filed October 14, 1998.

IN THE DRAWINGS:

Please delete sheets "5/13", "6/13", and "7/13" and replace with the
figures attached hereto.

IN THE CLAIMS:

Please cancel claims 1, ~~2~~, and 4-21.

Please replace claim 3 with the following amended claim:

- 200220-846T800T
- 1 3. (As Amended) A method for fabricating a multilayer ceramic substrate
2 comprising the steps of:
- 3 (a) manufacturing an intaglio plate of flexible resin substance, on which a
4 first groove corresponding to a first conductive pattern is formed and a second
5 groove having a depth deeper than that of the first groove is formed at a place
6 corresponding to a via of the first conductive pattern;
- 7 (b) filling the first and the second grooves with an electroconductive paste;
- 8 (c) increasing conductivity of respective paths in said first and second
9 grooves by deaerating and drying the paste;
- 10 (d) adding additional electroconductive paste to said first and second
11 grooves to replenish a decremented volume of said paste ;
- R2

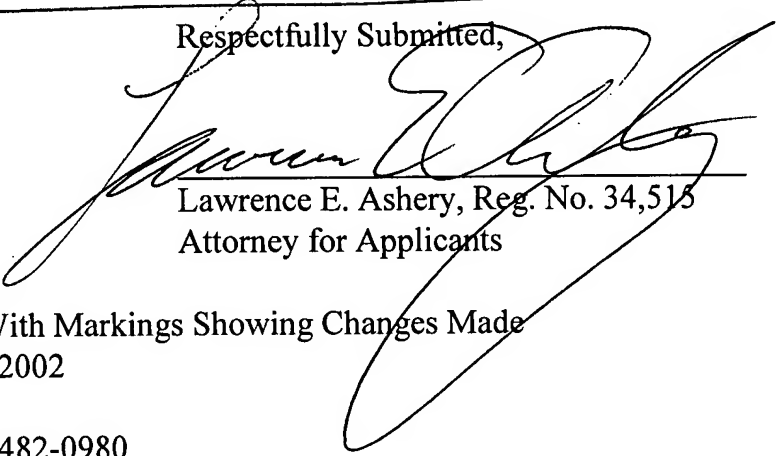
12 (e) gluing said intaglio plate onto a ceramic substrate by applying heat and
13 pressure;

14 (f) separating said intaglio plate from said ceramic substrate to have a
15 pattern of the electroconductive paste transferred onto the ceramic substrate, and
16 burning it so as to form said first conductive pattern on the ceramic substrate;

17 (g) forming an insulation layer on said first conductive pattern, (wherein said
18 insulation layer is formed by a printing technology covering the whole area of said
19 first conductive pattern and is dried, said via is exposed through abrasion or
20 grinding of the dried insulation layer and said insulation layer is burned after the
21 exposure of said via; *skin of before burning said insulation layer*

22 (h) forming a second conductive pattern on said insulation layer.

Respectfully Submitted,


Lawrence E. Ashery, Reg. No. 34,515
Attorney for Applicants

LEA/lm

Enclosure: Version With Markings Showing Changes Made

Dated: February 20, 2002

P.O. Box 980

Valley Forge, PA 19482-0980

(610) 407-0700

The Assistant Commissioner for Patents is
hereby authorized to charge payment to
Deposit Account No. 18-0350 of any fees
associated with this communication.

EXPRESS MAIL

Mailing Label Number:

EV050915647US

Date of Deposit:

February 20, 2002

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with
sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States
Postal Service on the date indicated above and that the deposit is addressed to the Assistant
Commissioner for Patents, Washington, D.C. 20231.


Kathleen Libby

10081948-022002

Copy
A2